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KAGAKU GIJUTSU SHINKO JIGYODAN

ISHIHARA KAZUHIKO

NAKABAYASHI NORIO

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(72)Inventor:

ISHIHARA KAZUHIKO FUKUMOTO KIKUKO IWASAKI YASUHIKO

NAKABAYASHI NORIO

(54) BLOOD COMPATIBLE POROUS FILM AND ITS PRODUCTION

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a blood compatible porous film and the producing method thereof.

SOLUTION: The blood compatible porous film is produced by uniformly dissolving both a polymer which has a group shown by a formula (wherein, R1, R2 and R3 are the same or different group and denote hydrogen atom and 1–4 C alkyl group and (n) denotes integer of 2–4) in a side chain as a component A and the other polymer as a component B and immersing the polymer composition into a good solvent of the component A and a bad solvent of the component B. As the good solvent for dissolving the polymer A and the polymer B, concretely, for example, methylene chloride(MC), chloroform(CHCI3), methanol(MeOH), ethanol(EtOH), isopropanol (PrOH), dimethyl sulfoxide(DMSO), dimethylformamide(DMF), dimethylacetamide(DMAc) and a mixed solvent thereof are shown.

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1. This document has been translated by computer. So the translation may not reflect the original precisely.

2.**** shows the word which can not be translated.

3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] As an A component, it is the following general formula [1].

(It is that R1, R2, and R3 are the same or a different radical among a formula, and a hydrogen atom or the alkyl group of carbon numbers 1-4, and n show the integer of 2-4.) Haemocompatibility porous membrane characterized by consisting of a macromolecule constituent containing other polymers B as the polymer A which has the radical expressed in a side chain, and a B component. [Claim 2] As an A component, it is the following (a1) general formula [1].

[Formula 2]

the inside of a formula, and that R1, R2, and R3 are the same or a different radical -- it is -- a hydrogen atom or the alkyl group of carbon numbers 1-4 -- n shows the integer of 2-4. The polymer A which comes to carry out the polymerization of the monomer mixture which contains independence for the monomer which has the radical expressed, and contains less than [monomer 99 mol %] besides less than [100 mol %] (a2) for this monomer, and 1 - 99 weight section, Haemocompatibility porous membrane according to claim 1 which consists of macromolecule mixture which contains other polymers B99 - 1 weight section as a B component.

[Claim 3] The manufacture approach of the haemocompatibility porous membrane characterized by consisting of the following processes 1, 2, and 3. Process 1; (a1) The following general formula [1]

[Formula 3]

(-- it is that R1, R2, and R3 are the same or a different radical among a formula, and a hydrogen atom or the alkyl group of carbon numbers 1-4, and n show the integer of 2-4.) -- the polymerization of the monomer mixture which contains independence for the monomer which has the radical expressed, and contains less than [monomer 99 mol %] besides less than [100 mol %] (a2) for this monomer is carried out, and Polymer A (A component) is compounded.

Process 2; with the aforementioned polymer A and 1 - 99 weight section, at least 99 - 1 weight section are dissolved for other polymers B (B component) in a good solvent, and homogeneous macromolecule mixture is obtained.

Process 3; it is the poor solvent of other polymers B, and the good solvent of Polymer A is made immersed and let the aforementioned macromolecule mixture be porous membrane.

[Claim 4] The manufacture approach of haemocompatibility porous membrane according to claim 3 that Polymer A is a copolymer of 2methacryloiloxy-ethyl-2'-(trimethylammonio) ethyl phosphate and n-butyl methacrylate, Polymer B is polysulfone, and a good solvent is [a poor solvent] a methanol in the weight ratio 50 of chloroform/ethanol / mixed solvent of 50 - 90/10.

[Translation done.]

Drawing selection drawing 1

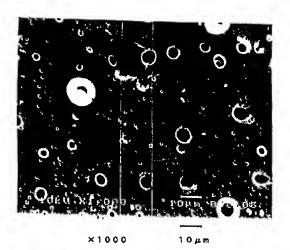


図1 実施例1-1の走査顕微鏡写真の図

[Translation done.]